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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,697	10/23/2003	Noriyasu Kuzuhara	02860.0685-01	9748

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EXAMINER

SEFER, AHMED N

ART UNIT PAPER NUMBER

2826

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,697	KUZUHARA ET AL.	
	Examiner	Art Unit	
	A. Sefer	2826	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30,37-40,43-46 and 48-54 is/are rejected.
- 7) ☒ Claim(s) 31-36,41,42,47,55 and 56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09907,809.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 30, 37, 38, 40, 43, 44, 46 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro et al. ("Negoro") US PG-Pub 2004/0245499 in view of Takagi et al. ("Takagi") USPN 6,261,649.

Negoro discloses in fig. 1 a polarizing plate 2 (as in claim 48) an optical compensation film comprising a support 3a and an optically anisotropic layer 4a consisting a single layer (as in claim 40), wherein the optically anisotropic layer is a layer on which orientation of a liquid crystalline compound is fixed, wherein the support is an optically biaxial cellulose ester film (pars. 0055 and 0059), but lacks anticipation of the liquid crystalline compound of the optical anisotropic layer being rod-shaped.

Takagi discloses (see figs. 6, 19 and col. 39, lines 58-63) an optical compensation film, wherein the optical compensation film comprises a support and an optically anisotropic layer, in which the optically anisotropic layer on which orientation of a rod-shaped (col. 57, lines 40-47) liquid crystalline (positive uniaxial crystalline indicates a rod-shaped crystalline) compound is fixed.

Since Negoro and Takagi are both from the same field of endeavor, LCD device, the teachings of Takagi would have been recognized in Negoro's pertinent art. Therefore, in view of

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Takagi's teachings, one having an ordinary skill in the art at the time the invention was made would be motivated to modify Negoro's device by incorporating a rod-shaped liquid crystalline since that would widen the angle of visual field as taught by Takagi.

Regarding claims 37 and 38, Negoro discloses (fig. 4 and par. 0019) an alignment layer 0 prepared by rubbing the surface of the support (as in claim 38) on which the liquid crystalline compound of optically anisotropic layer is oriented.

Regarding claim 43, Takagi discloses (col. 57, lines 40-47) rod-shaped liquid crystalline compound exhibiting optically positive uniaxial properties.

Regarding claims 44 and 46, the specification contains no disclosure of either the critical nature of the claimed arrangement or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

3. Claims 30, 37, 38, 40, 43, 44, 46 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Aminaka et al. ("Aminaka") JP 11-287994.

Negoro discloses in fig. 1 a polarizing plate 2 (as in claim 48) an optical compensation film comprising a support 3a and an optically anisotropic layer 4a consisting a single layer (as in claim 40), wherein the optically anisotropic layer is a layer on which orientation of a liquid crystalline compound is fixed, wherein the support is an optically biaxial cellulose ester film (pars. 0055 and 0059), but lacks anticipation of the liquid crystalline compound of the optical anisotropic layer being rod-shaped.

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Aminaka discloses (see figs. 1-2 and abstract) an optical compensation film, wherein the optical compensation film 12a/12b comprises a support and an optically anisotropic layer, in which the optically anisotropic layer on which orientation of a rod-shaped liquid crystalline (positive uniaxial crystalline indicates a rod-shaped crystalline) compound is fixed.

Since Negoro and Aminaka are both from the same field of endeavor, LCD device, the teachings of Aminaka would have been recognized in Negoro's pertinent art. Therefore, in view of Aminaka's teachings, one having an ordinary skill in the art at the time the invention was made would be motivated to modify Negoro's device by incorporating a rod-shaped liquid crystalline since that would prevent decrease in display contrast as taught by Aminaka.

Regarding claims 37 and 38, Negoro discloses (fig. 4 and par. 0019) an alignment layer 0 prepared by rubbing the surface of the support (as in claim 38) on which the liquid crystalline compound of optically anisotropic layer is oriented.

Regarding claim 43, Aminaka discloses rod-shaped liquid crystalline compound exhibiting optically positive uniaxial properties.

Regarding claims 44 and 46, the specification contains no disclosure of either the critical nature of the claimed arrangement or any unexpected results arising therefrom. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

4. Claims 49-51 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Takagi.

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Negoro discloses in fig. 1 a first polarizing plate 2a, a liquid crystal cell and a second polarizing plate 2b provided at a side closer to viewer side than the side of the first polarizer and the liquid crystal cell, and an optical compensation film being provided between the first polarizing plate and the liquid crystal cell or between the second polarizing plate and the liquid crystal cell, wherein an optical compensation film, provided between the polarizing plate and the cell comprises a support 3a and an optically anisotropic layer 4a composed of a single layer (as in claim 54), wherein the optically anisotropic layer is a layer on which orientation of a liquid crystalline compound is fixed, wherein the support is an optically biaxial cellulose ester film (par. 0059), but lacks anticipation of the liquid crystalline compound of the optical anisotropic layer being rod-shaped.

Takagi discloses (see figs. 6, 19 and col. 39, lines 58-63) an optical compensation film, wherein the optical compensation film comprises a support and an optically anisotropic layer composed of a single layer (as in claim 54), in which the optically anisotropic layer on which orientation of a rod-shaped (col. 57, lines 40-47) liquid crystalline (positive uniaxial crystalline indicates a rod-shaped crystalline) compound is fixed.

Since Negoro and Takagi are both from the same field of endeavor, LCD device, the teachings of Takagi would have been recognized in Negoro's pertinent art. Therefore, in view of Takagi's teachings, one having an ordinary skill in the art at the time the invention was made would be motivated to modify Negoro's device by incorporating a rod-shaped liquid crystalline since that would widen the angle of visual field as taught by Takagi.

Regarding claim 50, Negoro/Takagi discloses one optical compensation between the polarizing plate and the cell.

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Regarding claim 51, Negoro/Takagi discloses an optical compensation film being placed so that the support of the compensation film faces the cell.

5. Claims 49-51 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Aminaka.

Negoro discloses in fig. 1 a first polarizing plate 2a, a liquid crystal cell and a second polarizing plate 2b provided at a side closer to viewer side than the side of the first polarizer and the liquid crystal cell, and an optical compensation film being provided between the first polarizing plate and the liquid crystal cell or between the second polarizing plate and the liquid crystal cell, wherein an optical compensation film, provided between the polarizing plate and the cell comprises a support 3a and an optically anisotropic layer 4a composed of a single layer (as in claim 54), wherein the optically anisotropic layer is a layer on which orientation of a liquid crystalline compound is fixed, wherein the support is an optically biaxial cellulose ester film (par. 0059), but lacks anticipation of the liquid crystalline compound of the optical anisotropic layer being rod-shaped.

Aminaka discloses (see figs. 1-2 and abstract) an optical compensation film, wherein the optical compensation film 12a/12b comprises a support and an optically anisotropic layer, in which the optically anisotropic layer on which orientation of a rod-shaped liquid crystalline (positive uniaxial crystalline indicates a rod-shaped crystalline) compound is fixed.

Since Negoro and Aminaka are both from the same field of endeavor, LCD device, the teachings of Aminaka would have been recognized in Negoro's pertinent art. Therefore, in view of Aminaka's teachings, one having an ordinary skill in the art at the time the invention was

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made would be motivated to modify Negoro's device by incorporating a rod-shaped liquid crystalline since that would prevent decrease in display contrast as taught by Aminaka.

Regarding claim 50, Negoro/Aminaka discloses one optical compensation between the polarizing plate and the cell.

Regarding claim 51, Negoro/Aminaka discloses an optical compensation film being placed so that the support of the compensation film faces the cell.

6. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Takagi as applied to claims 30 and 37 above, and further in view of Nishikawa et al. ("Nishikawa") USPN 6,685,998.

The combined references disclose the device structure as recited in the claims, but lack anticipation of an alignment layer being oriented by light.

Nishikawa discloses (col. 5, lines 55-60 and col. 62, lines 58-60) an optical compensation film comprising an alignment layer being oriented by light.

Therefore, in view of Nishikawa's teachings, one having an ordinary skill in the art at the time the invention was made would be motivated to modify the device of the combined references by incorporating an alignment layer being oriented by light since that would arrange the alignment layer in a desired direction as taught by Nishikawa.

7. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Aminaka as applied to claims 30 and 37 above, and further in view of Nishikawa.

The combined references disclose the device structure as recited in the claims, but lack anticipation of an alignment layer being oriented by light.

Nishikawa discloses (col. 5, lines 55-60 and col. 62, lines 58-60) an optical compensation film comprising an alignment layer being oriented by light.

Therefore, in view of Nishikawa's teachings, one having an ordinary skill in the art at the time the invention was made would be motivated to modify the device of the combined references by incorporating an alignment layer being oriented by light since that would arrange the alignment layer in a desired direction as taught by Nishikawa.

8. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Takagi as applied to claim 30 above, and further in view of Okazaki et al. ("Okazaki") USPN 5,747,121.

The combined references disclose the device structure as recited in the claims, but lack anticipation of dissolving-out blocking layer.

Okazaki discloses (see abstract) an optical compensation film comprising a dissolving-out blocking layer (polyvinyl alcohol).

Therefore, in view of Okazaki's teachings, one having an ordinary skill in the art at the time the invention was made would be motivated to modify the device of the combined references by incorporating a dissolving-out blocking layer since that would increase bonding strength as taught by Okazaki.

9. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Aminaka as applied to claim 30 above, and further in view of Okazaki.

The combined references disclose the device structure as recited in the claims, but lack anticipation of dissolving-out blocking layer.

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Okazaki discloses (see abstract) an optical compensation film comprising a dissolving-out blocking layer (polyvinyl alcohol).

Therefore, in view of Okazaki's teachings, one having an ordinary skill in the art at the time the invention was made would be motivated to modify the device of the combined references by incorporating a dissolving-out blocking layer since that would increase bonding strength as taught by Okazaki.

10. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Takagi as applied to claims 30 and 49 above, and further in view of Miyachi et al. ("Miyachi") USPN 6,493,053.

The combined references disclose the device structure as recited in the claims, but lack anticipation of maximum index of refraction.

Miyachi discloses (see col. 29, lines 53-59) a rubbing direction of a liquid crystal cell closer to an optical compensation film crosses orthogonally or almost orthogonally to a direction giving maximum index of the refraction of the support.

It would have been obvious incorporate Miyachi's teachings since that would provide an LCD with a high contrast as taught by Miyachi.

11. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Aminaka as applied to claims 30 and 49 above, and further in view of Miyachi.

The combined references disclose the device structure as recited in the claims, but lack anticipation of maximum index of refraction.

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Miyachi discloses (see col. 29, lines 53-59) a rubbing direction of a liquid crystal cell closer to an optical compensation film crosses orthogonally or almost orthogonally to a direction giving maximum index of the refraction of the support.

It would have been obvious incorporate Miyachi's teachings since that would provide an LCD with a high contrast as taught by Miyachi.

12. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Takagi as applied to claims 30 and 49 above, and further in view of Aminaka et al. USPN 6,081,312 ("Aminaka '312").

The combined references disclose the device structure as recited in the claims, but lack anticipation of a rubbing direction of the cell being parallel or almost parallel to a rubbing direction of an optical compensation film.

Aminaka '312 discloses (see col. 8, lines 62-67) a rubbing direction of a liquid crystal cell closer to an optical compensation film being parallel to or almost parallel to a rubbing direction of an optical compensation film.

Therefore, it would have been obvious to incorporate the teachings Aminaka '312 since that would increase the viewing angle as taught by Aminaka '312.

13. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Negoro in view of Aminaka as applied to claims 30 and 49 above, and further in view of Aminaka '312.

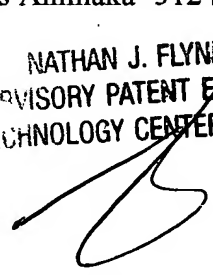
The combined references disclose the device structure as recited in the claims, but lack anticipation of a rubbing direction of the cell being parallel or almost parallel to a rubbing direction of an optical compensation film.

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Aminaka '312 discloses (see col. 8, lines 62-67) a rubbing direction of a liquid crystal cell closer to an optical compensation film being parallel to or almost parallel to a rubbing direction of an optical compensation film.

Therefore, it would have been obvious to incorporate the teachings Aminaka '312 since that would increase the viewing angle as taught by Aminaka '312.

NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800



Allowable Subject Matter

14. Claims 31-36, 41, 42, 47, 55 and 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (571) 272-1921.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANS
May 12, 2005